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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/708,071

02/06/2004

Michael J. French

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BOMBARDIER RECREATIONAL PRODUCTS INC.
INTELLECTUAL PROPERTY DEPT
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EXAMINER

WAKS, JOSEPH

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 01/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/708,071

Applicant(s)

FRENCH, MICHAEL J.

Examiner

Joseph Waks

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/13/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the battery-less engine as recited in claim 13, the electrically isolated first and second batteries as recited in claim 23, and the switching regulator configured to switch the alternator winding configuration to and from at least two of a series configuration, a parallel configuration, and a combination of series and parallel configuration as recited in claim 26 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 13 and 26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The battery-less engine and the switching regulator configured to switch the alternator winding configuration to and from at least two of a series configuration, a parallel configuration, and a combination of series and parallel configuration are not shown in the drawings and not described in the specification.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-3, 7, 9, 11, and 14-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Swanson et al. (US 6,624,533).

Swanson et al. disclose invention as claimed: an auxiliary component 24 disposed within a recreational product (shown in Figures 3 and 4) and configured to be powered by a rated voltage within a rated voltage range of 12 or 24 VDC, an engine 12 in operable association with

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the recreational product configured to supply an internal rail voltage (bus voltage in Figure 5) substantially greater (170-250VDC) than the rated voltage range, and a converter system 40 configured to convert the internal rail voltage to supply the auxiliary component with the rated voltage, a switching regulator 30.

Re claims 14-16, Swanson et al. disclose the system as claimed. Claims 14 that merely recite connecting and using the disclosed features together are inherent to the disclosed structure.

6. Claims 1, 3, 4, 7, 9, and 14-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Ulinski et al. (US 6,700,214).

Ulinski et al. disclose invention as claimed: an auxiliary component 110 disposed within a recreational product (Re column 7, lines 1-4) and configured to be powered by a rated voltage within a rated voltage range, an engine 246 in operable association with the recreational product configured to supply an internal rail (210) voltage 200VDC substantially greater than the rated voltage range of the auxiliary component (Re column 9, lines 55-62), and a converter system 226 configured to convert the internal rail voltage to supply the auxiliary component with the rated voltage, a switching regulator 114, and a buck converter 452.

Re claims 14-17, Ulinski et al. disclose the system as claimed. Claims 14 that merely recite connecting and using the disclosed features together are inherent to the disclosed structure.

7. Claims 20, 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Mori et al. (JP200308119A).

Mori et al. disclose invention as claimed: an outboard motor having a powerhead with a combustion engine 2, a midsection 3 configured for mounting the outboard motor to a watercraft, and a lower unit 4 powered by the combustion engine to propel the watercraft, a battery 14

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only operable and connected to within a battery charging range, the battery provides starting power to the combustion engine, a converter 12 connected to the combustion engine and configured to convert AC power supplied by the combustion engine to a DC power includes a voltage that is above the battery charging range, and a regulator 13 connected to the converter and configured to adjust the DC power to supply voltage within the battery charging range.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1, 3-6, 9, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schultz et al. (US 5,483,146) in view of Ulinski et al. (US 6,700,214).

Schultz et al. disclose a system for providing auxiliary power from engine (see column 1 line 15) including: an auxiliary component 38 configured to be powered by a rated voltage within a rated voltage range, configured to supply an internal rail voltage substantially greater than the rated voltage range of the auxiliary component (Re column 1, lines 30-40), and a converter system in form of a buck converter 35 configured to convert the internal rail voltage to supply the auxiliary component with the rated voltage, and a switching regulator 31. However, Schultz et al. do not disclose the system for providing auxiliary power disposed within a recreational product, a pulse width modulator control circuit 80 controlling discrete switch 60 and inductive component 42.

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Ulinski et al. disclose a similar system for providing auxiliary power disposed within a recreational product for the purpose of preventing reduction of engine RPM as result of sudden increase of torque applied to the engine.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the system as taught by Schultz et al. in a recreational product as taught by B for the purpose of preventing reduction of engine RPM as result of sudden increase of torque applied to the engine.

Re claims 19, the combined system discloses all elements as claimed. Claims 18 that merely recite connecting and using the disclosed features together are inherent to the disclosed structure.

10. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Swanson et al. (US 6,624,533) in view of Menard et al. (US 6,544,085).

Swanson et al. disclose the system essentially as claimed. However, Swanson et al. do not disclose the engine being a two-stroke engine.

Menard et al. disclose a recreational watercraft using a two-stroke engine. Menard et al. also disclose that it is well known in the art to provide the small, recreational watercrafts with water-cooled two-stroke internal combustion engines.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the boat or recreational vehicle as taught by Swanson et al. with the well known in the art two-stroke engine as taught by Menard et al. for the purpose of powering a personal recreational watercraft.

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11. Claims 10 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swanson et al. (US 6,624,533) in view of Tamai et al. (US 6,459,170).

Swanson et al. disclose the system essentially as claimed. However, Swanson et al. do not disclose the auxiliary component including a second battery.

Tamai et al. disclose a recreational watercraft using a second battery to supply low voltage accessories such as audio apparatus, lamps, a navigation apparatus, and a television receiver.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the boat or recreational vehicle as taught by Swanson et al. with a second battery as taught by Tamai et al. for the purpose of powering low voltage accessories such as audio apparatus, lamps, a navigation apparatus, and a television receiver.

Re claims 18, the combined system discloses all elements as claimed. Claims 18 that merely recite connecting and using the disclosed features together are inherent to the disclosed structure.

12. Claims 22, 24 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori et al. (JP200308119A) in view of Swanson et al. (US 6,624,533).

Mori et al. discloses the outboard motor essentially as claimed. However, Mori et al. do not disclose the DC power including a voltage greater than 36 volts DC and the battery charging range of 10-18 volts DC.

Swanson et al. discloses the DC power supply of 170 to 250VDC and the battery of 12 V for the purpose of providing loads to appliances requiring 110 or 220 VAC and to internal use of battery for engine starter.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the outboard motor as taught by Mori et al. and to provide the DC power including a voltage between 170 to 250 volts DC and the battery charging range of 10-18 volts DC as taught by Swanson et al. for the purpose of providing loads to outboard appliances requiring 110 or 220 VAC and to internal use of battery for engine starter.

13. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mori et al. (JP200308119A) in view of Tamai et al. (US 6,459,170).

Mori et al. disclose the system essentially as claimed. However, Mori et al. do not disclose the auxiliary component including a second battery.

Tamai et al. disclose a recreational watercraft using a second battery to supply low voltage accessories such as audio apparatus, lamps, a navigation apparatus, and a television receiver.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the outboard motor as taught by Mori et al. with a second battery as taught by Tamai et al. for the purpose of powering low voltage accessories such as audio apparatus, lamps, a navigation apparatus, and a television receiver.

14. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mori et al. (JP200308119A) in view of Schultz et al. (US 5,483,146).

Mori et al. disclose the system essentially as claimed. However, Mori et al. do not disclose the buck converter.

Schultz et al. disclose a converter system in form of a buck converter 35 configured to convert the internal rail voltage to supply the auxiliary component with the rated voltage.

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It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the outboard motor as taught by Mori et al. with a converter system in form of a buck converter as taught by Schultz et al. for the purpose of converting the internal rail voltage to supply the auxiliary component with the rated voltage.

15. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mori et al. (JP200308119A) in view of **Blum** (US 6,222,331).

Mori et al. disclose the system essentially as claimed. However, Mori et al. do not disclose the multi-coil alternator.

Blum discloses the multi-coil alternator for the purpose of operating the alternator as a motor.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the outboard motor as taught by Mori et al. with the multi-coil alternator as taught by Blum for the purpose of operating the alternator as a motor to supplement the power to the engine or to operate the watercraft with electric motor only.

Prior Art

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Waks whose telephone number is (571) 272-2037. The examiner can normally be reached on Monday through Thursday 8 am to 5 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren E Schuberg can be reached on (571) 272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Joseph Waks
Primary Examiner
Art Unit 2834

1/8/05